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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

In the Matter of

Advanced Television Systems  
and Their Impact upon the  
Existing Television Broadcast  
Service

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MM Docket No. 87-268

**COMMENTS OF THE**  
**UNITED STATES ADVANCED TELEVISION SYSTEMS COMMITTEE**  
**(ATSC)**

The United States Advanced Television Systems Committee (hereinafter "ATSC") hereby files comments on the Second Report and Order/Further Notice of Proposed Rule Making released May 8, 1992 ("Order/FNPRM").

The ATSC was established in late 1982 by the Joint Committee on Inter-Society Coordination (JCIC) to coordinate and develop voluntary national technical standards for advanced television systems. The JCIC members — the Electronic Industries Association, the Institute of Electrical and Electronics Engineers, the National Association of Broadcasters, the National Cable Television Association, and the Society of Motion Picture and Television Engineers — are Charter Members of the ATSC. More than fifty corporations, companies, television networks, associations and universities are members of the ATSC and cooperate in the work of the organization. As such, the ATSC is broadly representative of virtually all facets of the United States television, motion picture, and electronics industries on the specific topic of Advanced Television.

In these comments ATSC wishes to call to the attention of the Commission recent actions which support certain Commission positions as stated in the Order/FNPRM. In particular, ATSC notes that the Order/FNPRM at ¶69 states:

*Finally, we recognize that prompt disclosure of a winning system's technical specifications may be necessary to permit the mass production of ATV equipment in a timely fashion. The Advisory Committee indicates that industry efforts are underway to designate a standards-setting group to undertake the formulation of such specifications. We encourage such efforts and will monitor the progress of this industry activity.*

The ATSC Executive Committee has examined a number of areas where technical specifications will be necessary following the Commission's determination of a winning

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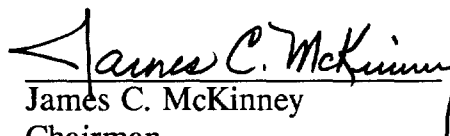
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system." Those areas are listed in Annex I along with the designation of the industry group which has agreed to undertake the formulation of such specifications.

ATSC plans to file further comments on the Order/FNPRM but wanted to bring this new information to the attention of the Commission in a timely manner.

Respectfully submitted,

**United States Advanced  
Television Systems Committee**  
1776 K Street, NW, Suite 300  
Washington, DC 20006

  
James C. McKinney  
Chairman

June 5, 1992

**COORDINATION OF ATV STANDARDS ACTIVITIES**  
(June 5, 1992)

The ATSC Executive Committee has reviewed the areas where documentation of ATV<sup>1</sup> standards will be required when the FCC selects the United States terrestrial transmission system. Some areas require joint cooperation among a wide variety of industries to reach consensus on standardization. Other areas affect only one sector and can best be accomplished by individual JCIC<sup>2</sup> organizations. Following are the areas identified and the suggested group which should take primary responsibility for the work.

**Advanced Television Systems Committee**

The ATSC should be responsible for resolving issues where such resolutions must precede the standards activities of individual JCIC members. Also, the ATSC should be responsible for those standards where several different sectors must work together in order to arrive at agreed standards decisions. Suggested areas are:

1. Terrestrial Distribution — When a terrestrial transmission system is recommended by the Advisory Committee on Advanced Television Service, the ATSC will immediately begin to document that standard. The FCC will need this information to include it in the final Report and Order in Docket 87-268 which will be issued approximately 6 - 8 months after the Advisory Committee issues its recommendation. Work will be carried out in our Technology Group on Distribution or some similarly organized group. The resulting documentation will be approved by the full membership of the ATSC. This documentation will fall into four categories:

a) RF Characteristics — Some of the documentation will be included directly in the FCC Rules and therefore subject to a Notice of Proposed Rule Making. Items in this category generally relate to channel coding and RF spectrum issues.

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<sup>1</sup> The FCC uses the term ATV to refer to any television technology that provides improved audio and video quality or enhances the current television system. ATV includes High Definition Television (HDTV) and all systems now under consideration are HDTV systems.

<sup>2</sup> The Joint Committee on Intersociety Coordination (JCIC) is composed of the Electronic Industries Association, the Institute of Electrical and Electronics Engineers, the National Association of Broadcasters, the National Cable Television Association and the Society of Motion Picture and Television Engineers.

b) Source Coding of Video and Audio — The video and audio compression parameters must be documented to ensure that receivers can operate successfully. This documentation may be incorporated into the FCC Rules or may be included in an OET Bulletin.

c) Program-Related Services — Other portions of the documentation may be included in an OET Bulletin which will be referred to in the Rules. Items in this category generally relate to program-related service issues such as headers and captioning. Other consumer data services not yet defined should be dealt with by the EIA as discussed below.

d) Receiver Guidelines — All of the proponent systems rely on improved receivers in order to permit the use of the "taboo" channels for ATV delivery to the home. If receivers are not designed to permit the use of the taboo channels, the new ATV delivery system will not function. This issue is so closely related to the terrestrial transmission standard that the ATSC will assume responsibility for this documentation as well. This information will likely be published by the FCC in an OET Bulletin and may be used as part of the laboratory testing of receivers at the FCC laboratory at Laurel, Md.

2. U.S. Production Standard — ATSC is the only forum for professional equipment manufacturers. Once the FCC has selected the terrestrial transmission system, additional discussions will be necessary regarding the relationship between broadcasting and production.

3. International Standards — ATSC should continue its established role of developing proposed national positions on production and broadcasting for submission to the Department of State for its use in the CCIR and with other international organizations as appropriate.

### **Society of Motion Picture and Television Engineers**

SMPTE is active in imaging, including architectures, structures and interchange, and in the production of motion pictures and television. A number of ATV related projects have already been undertaken within this area of competence and some are now complete. SMPTE is thus the appropriate organization to develop the necessary documentation to support the production and inter-studio distribution of program material for ATV and to ensure the necessary interconnectivity of production equipment. Specific activities to be undertaken may include:

1. Documentation of studio signal formats and interfaces in both digital and analog forms.

2. Television recording formats and related operating practices.
3. Documentation to support the use of motion picture film in ATV production and program release.
4. Quality measurements and assessments related to production.
5. Operational and interoperability matters.

#### **Institute of Electrical and Electronics Engineers**

1. Broadcast Testing and Measurement Standards — Equipment used to deliver ATV programming to the home will have to be effectively tested and their technical parameters measured. FCC may need to include this information in one of their OET Bulletins in order to guide manufacturers in the development of new products. The IEEE should assume responsibility for this work.
2. Terminology.

#### **Electronic Industries Association**

1. Consumer Ancillary Data — As discussed above, the ATSC will assume responsibility for the documentation of the standards for closed captioning and similar Consumer Ancillary Data services. However, other services are possible with the new ATV digital delivery system. For example, electronic program guides may be desirable in the future. EIA should assume responsibility for the documentation of all other data services which rely on the television receiver as the decoder and display device.
2. Receiver Interface Standards — It is likely that the ATV receivers will be provided with a multiport connector which will be used to interconnect a wide variety of future electronic devices such as cameras, computers, ISDN feeder cable, etc. EIA is the appropriate organization to document standards for this equipment.
3. Consumer VCR and Videodisc Interchange Standards — With the advent of a new terrestrial digital ATV delivery system, consumer tape/disc interchange format standards will need to be developed. EIA is the appropriate organization to specify those standards.
4. Consumer Equipment Testing and Measurement Standards — To efficiently develop consumer electronic products, a baseline procedure is needed in this totally new product area. This may alternately be in the form of industry guidelines. EIA has been responsible for these types of documents in the past.

### **National Cable Television Association**

1. Cable Distribution — Sixty percent of today's television households are now served by the cable television industry. NCTA will need to document standards for delivery of the new ATV signals to the home through the local cable system. EIA should be involved to ensure interconnection with ATV receivers. NAB should be involved because many of the cable channels carry terrestrial broadcast signals.

### **Satellite Broadcasting and Communications Association**

1. DBS Distribution — In the United States, several companies have stated their intention to provide satellite delivery systems for ATV programming. The SBCA, although not a member organization of the JCIC, may be the appropriate organization to complete this work. This work will parallel that of NCTA regarding cable delivery and should be jointly entered into by both organizations. EIA should be involved, as well, to ensure interconnection with ATV receivers.

2. Satellite Commercial Distribution — Commercial distribution of ATV programming will be used to deliver programming to local outlets. The SBCA may be the appropriate organization to complete these standards but NAB and NCTA should be involved to ensure that the standards meet the needs of their members.